

ON A NEW SPECIES OF *RHIZOPHYLLUM*, FROM
THE UPPER SILURIAN ROCKS OF YASS, N.S.W.

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(Communicated by Fred. Turner, F.L.S., &c.)

(Plate xxvi.*)

RHIZOPHYLLUM YASSENSE, sp.nov.

The well-known Silurian deposits of the Yass district have been responsible for many forms of fossils new to science; and although the district has been under observation for many years, it is far from being overworked, and would well repay a more detailed geological inspection than it has hitherto received. Among the most interesting corals to be found in this district are the Calceola-like operculate rugose corals, *Rhizophyllum interpunctatum*, De Kon., and *R. australe*, Eth. fil. Both of these forms have been fully described by Mr. R. Etheridge, Junr., in the "Records of the Australian Museum" (Vol. 1, No. 10, Dec., 1891). I have now to record another form of *Rhizophyllum* which I found in Derrengullen Creek between Yass and Bowning, which differs in so many respects from the above-mentioned forms, that I feel justified in referring it to a new species.

The following is a description of this new form :—

Corallum simple, pyramidal, short, widely expanded above, obtusely pointed below, lateral angles rounded and obtuse, section suboval plano-convex; dorsal surface convex; ventral surface flat transversely, but longitudinally the lower two-thirds are flat, and the upper one-third curved inwards towards the calice. Calice of a distinct crescentic shape, deep, extending to a depth of about one-half the height of the corallum, and possessing a well-marked subcentral depression; dorsal margin sharp and

* The Plate lettered Pl. xxvii. should have been Pl. xxvi.

moderately thin, horizontal, with no signs of cardinal septum; ventral margin thick at the centre, but tapering towards the lateral angles, with a fossula on the inner side; a slight depression externally showing the probable position of the counter septum; the septa are present in the form of crenulations. A thick well-marked laminar epitheca covers both dorsal and ventral surfaces. The remains of a few exothecal processes or anchoring stolons are visible on the ventral surface near the lateral angles. The internal structure is vesicular, the vesicles showing faintly at the weathered fractured apex; these vesicles were rendered more distinct by grinding and polishing the apex.

The measurements of the specimen are as follows :—Length of the corallum $\frac{3}{4}$ inch; greatest width across the calice $1\frac{9}{16}$; greatest thickness $\frac{3}{4}$ inch.

Locality and horizon.—Shales in Derrengullen Creek at the junction with Limestone Creek, near Yass; Upper Silurian, probably Wenlock; Coll. A. J. Shearsby.

I propose to call this interesting coral *Rhizophyllum yassense*.

EXPLANATION OF PLATE.

Rhizophyllum yassense, A. J. Shearsby.

Fig. 1.—Dorsal view.

Fig. 2.—Ventral view.

Fig. 3.—Lateral view.

Fig. 4.—View of calice, showing crescentic shape, the thick inturned ventral margin with fossula, the subcentral depression, and the crenulations.

Fig. 5.—Dorsal view showing calice and fossula.

Fig. 6.—View of apex.

Fig. 7.—Weathered section of apex, showing vesicular tissue ($\times 2$).

NOTE.—Figs. 1 to 6 are drawn natural size. Fig. 7 is twice natural size.